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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,655	01/16/2004	David Huang	EQUUS-105A	8050

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EXAMINER

HUYNH, PHUONG

ART UNIT	PAPER NUMBER
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2857

DATE MAILED: 01/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/759,655

Applicant(s)

HUANG, DAVID

Examiner

Phuong Huynh

Art Unit

2857

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10/13/2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 12-33 is/are rejected.
- 7) ☐ Claim(s) 10 and 11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 June 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>03/04/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:

At page 9, Paragraph [0035], line 16, and at page 10, line 1 "diagnostic descriptor segments 44, 46" should be --diagnostic descriptor segments 46 and 48-- to correspond to Figure 5.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Funkhouser et al. (hereinafter "Funkhouser"), (US 2002/0193925).

Regarding claims 1,6, 13-15, 20, 25, and 29 Funkhouser discloses a vehicular diagnostic tool [Figures 1-5] for receiving vehicular diagnostic codes from a vehicle on board computer, and translating the diagnostic codes into diagnostic descriptive data comprising:

Art Unit: 2857

an input port [ODB II port plug 64 in Figure 2/ also known as data link connector; also see ODB II connector 56 in Figure 3] for receiving vehicular diagnostic codes output from a vehicle under test [vehicle 18] [See Funkhouser: Paragraphs [0040], [0055], [0064], [0066], [0071], and [0074]]

a code parser for parsing the received diagnostic codes into diagnostic code segments;

a code translator for correlating diagnostic code segments into diagnostic descriptor segments ;

and a combiner for combining the code descriptor segments to derive composite diagnostic code descriptor, the composite code descriptor being collectively representative of the received diagnostic code;

As mentioned in Funkhouser, at Paragraphs [0079]-[0092], the diagnostic trouble codes (DTCs)/error codes retrieved from vehicle are transferred to server 34, which contains the software that matches the captured codes to code interpretations contained on the ODBII database contained on the server 34. The software processes the error codes within the server 34 to provide a human-readable report in a natural language and transferred back to the user in a natural language. For example, a DTC number/code such as P0171 will have a description such as Error/Air level too high. Therefore, it is the Examiner's position that "software" with the algorithm as described above so as to correlate and "interpret" the DTCs (low level language) to provide a human-readable report in a natural language (high-level language), which meets the claimed "parser, code translator, composite code descriptor."

As mentioned in Funkhouser, at Paragraphs [0040]-[0043], [0047], [0058], [0060], and [0062], that the hand held device 12 or 200 [in Figures 2,3 and 5], is not designed to include sufficient display or processing capabilities to process the error codes on its own, or to display results of the processed data on its display to enable the device to lower the manufacture-cost as the memory required to maintain all of the database information. Although the capability of these processing, display, communication and memory

Art Unit: 2857

components are still necessary, these capabilities already exist within devices such as personal computers 26 and the web server 34. Also, the LED display is preferably over the full screen type LCD display so as to minimize the cost. It is the Examiner's position that this meets the claimed "handheld electronic automobile diagnostic device" or "the method for displaying on a handheld device" as set forth in claims 15 and 20, respectively.

Regarding claims 2 and 12, Funkhouser discloses the parser is operative code descriptor to parse received diagnostic codes into generic code segments and specific code descriptor segments [see Funkhouser: Paragraphs [0088]-0092]].

Regarding claims 3 and 16, Funkhouser discloses the code translator includes a look-up table including generic descriptor segments and specific descriptor segments.

As mentioned in Funkhouser, at Paragraph [0086] that the ODB II database in server 34, which interprets such codes, is in the public domain, and contains a list of several code records and each of them contains a DTC code and a brief description. It is the Examiner's position that this database meets the claimed "look-up table".

Regarding claim 4, Funkhouser discloses the generic descriptor segments correspond to the generic diagnostic code segments and the specific descriptor segments correspond to the specific diagnostic code segments. As mentioned in Funkhouser, at Paragraphs [0080]-[0092], that the error codes in the format as shown in Paragraphs [0089] are processed by the software within server 34 to provide a human-readable report in a natural language as shown in Paragraphs [0090] and [0091]. It is the

Art Unit: 2857

Examiner's position that this meets the claimed "the generic descriptor segments correspond to the generic diagnostic code segments and the specific descriptor segments correspond to the specific diagnostic code segments".

Regarding claim 5, Funkhouser discloses the combiner combines generic descriptor segments and specific descriptor segments to derive the composite code descriptors. As mentioned in Funkhouser, at Paragraphs [0080]-[0092], that the error codes in the format as shown in Paragraphs [0089] are processed by the software within server 34 to provide a human-readable report in a natural language as shown in Paragraphs [0090] and [0091]. It is the Examiner's position that this meets the claimed "the combiner combines generic descriptor segments and specific descriptor segments to derive the composite code descriptors."

Regarding claim 7, Funkhouser discloses the step of storing diagnostic code descriptor code segments for a plurality of vehicle types [see Funkhouser: Paragraph [0099]].

Regarding claim 8, Funkhouser discloses the step of accessing descriptor code segments in response to identification of a type of vehicle under test [see Funkhouser: Paragraphs [0082] and [0083]].

Regarding claim 9, Funkhouser discloses the identification of the type of vehicle under test proceeds independent of user input [see Funkhouser: Paragraph [0083]].

Regarding claims 16 and 21, Funkhouser discloses that the descriptor segments tables are identified and searchable by the diagnostic code.

As mentioned in Funkhouser, at Paragraph [0099] that the server 34 can store the error code information retrieved from users, which permits data mining by service organization and automobile manufactures and the developments of neural networks and expert systems. It is the Examiner's position that this meets the claimed "identified and searchable".

Regarding claims 17 and 22, Funkhouser discloses that the received at least one diagnostic code is stored in the SRAM [see Funkhouser: Paragraph [0084]].

Regarding claims 18, 23, 26 and 31, Funkhouser discloses the descriptor table(s) and the composite code table(s) are stored within said flash memory [see Funkhouser: Paragraph [0058]].

Regarding claims 19, 24, 27, 28, 32 and 33, Funkhouser discloses that a source code segment for copying the identified descriptor table(s) into SRAM of the device.

As mentioned in Funkhouser, at Paragraphs [0040]-[0043], [0047], [0058], [0060], and [0062], that the hand held device 12 or 200 [in Figures 2,3 and 5], is not designed to include sufficient display or processing capabilities to process the error codes on its own, or to display results of the processed data on its display to enable the device to lower the manufacture-cost as the memory required to maintain all of the database information. Also, the LED display is preferably over the full screen type LCD display so as to minimize the cost. Furthermore, as disclosed in Paragraph [0058] that the main processor 84 although designed to perform functions of the handheld device, is a processor of limited capabilities because it is to

lower the cost and these capabilities already exist within devices such as personal computers 26 and the web server 34. It is the Examiner's position that the main processor of the device meets the claimed invention.

Allowable Subject Matter

3. Claims 10 and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 10, the combination as claimed wherein "identification of the type of vehicle under test by sequential generation of a plurality of linking commands, each linking command being formatted in accordance with an associated vehicle protocol" disclosed, suggested, or rendered obvious by the prior art of record.

Regarding claim 11, the combination as claimed wherein "a protocol associated with the vehicle under test is identified and only code descriptor segments corresponding to the identified protocol are accessed by the code translator" disclosed, suggested, or rendered obvious by the prior art of record.

Response to Arguments

1. Applicant's arguments filed on October 13, 2005 have been fully considered but they are not persuasive.

With respect to the 35 U.S.C. 103 rejections, Applicants argue, "Funkhouser et al. does not specify that the error codes are parsed into segments".

As mentioned in Funkhouser, at Paragraphs [0079]-[0092], the diagnostic trouble codes (DTCs)/error codes retrieved from vehicle are transferred to server 34, which contains the software that matches the captured codes to code interpretations contained on the OBDII database contained on the server 34. The software processes the error codes within the server 34 to provide a human-readable report in a natural language and transferred back to the user in a natural language. For example, a DTC number/code such as P0171 will have a description such as Error/Air level too high. Therefore, it is the Examiner's position that "software" with the algorithm as described by Funkhouser, which correlates and "interprets" the DTCs (low level language) to provide a human-readable report in a natural language (high-level language), clearly meets the claimed "parser, code translator, and composite code descriptor."

Funkhouser thus meets the claimed invention.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phuong Huynh whose telephone number is 571-272-2718. The examiner can normally be reached on M-F: 8:30 AM - 5:00 PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc Hoff can be reached on 571-272-2216. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2857

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Phuong Huynh
Examiner
Art Unit 2857

PH
01/18/2006


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